# Questions & Answers on Skin Cancer Prevention

Studies show that even a few serious sunburns can increase your risk of getting skin cancer in the future. Fortunately, skin cancer is one of the most preventable cancers. By taking a few simple steps towards reducing your exposure to the sun's ultraviolet (UV) rays, you can keep your skin protected year-round and still have fun in the sun.

## Sun Exposure

**Q: When do I need to protect myself from sun exposure?**
**A:** Protection from sun exposure is important all year round, not just during the summer or at the beach. Any time the sun's UV rays are able to reach the earth, you need to protect yourself from excessive sun exposure. UV rays can cause skin damage during any season or temperature.

Relatively speaking, the hours between 10 a.m. and 4 p.m. during daylight savings time (9 a.m. - 3 p.m. during standard time) are the most hazardous for UV exposure in the continental United States. UV radiation is the greatest during the late spring and early summer in North America.

Remember: UV rays reach you on cloudy and hazy days, as well as on bright and sunny days. UV rays will also reflect off any surface like water, cement, sand, and snow.

## UV Rays

**Q: What exactly are "ultraviolet rays"?**
**A:** Ultraviolet (UV) rays are a part of sunlight that is an invisible form of radiation. UV rays can penetrate and change the structure of skin cells.

There are three types of UV rays: ultraviolet A (UVA), ultraviolet B (UVB), and ultraviolet C (UVC). UVA is the most abundant source of solar radiation at the earth's surface and penetrates beyond the top layer of human skin. Scientists believe that UVA radiation can cause damage to connective tissue and increase a person's risk for developing skin cancer.

UVB rays are less abundant at the earth's surface than UVA because a significant portion of UVB rays is absorbed by the ozone layer. UVB rays penetrate less deeply into the skin than do UVA rays, but also can be damaging.

UVC radiation is extremely hazardous to skin, but it is completely absorbed by the stratospheric ozone layer and does not reach the surface of the earth.

**Q: How can I protect myself from the sun's UV rays?**
**A:** When possible, avoid outdoor activities during midday, when the sun's rays are strongest. This usually means the hours between 10 a.m. and 4 p.m. You can also wear protective clothing, such as a wide-brimmed hat, long-sleeved shirt, and long pants.

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For eye protection, wear wraparound sunglasses that provide 100 percent UV ray protection. And always wear a broad-spectrum (protection against both UVA and UVB rays) sunscreen and lipscreen with at least SPF 15. Remember to apply generously 30 minutes before going outside and re-apply especially after swimming or sweating.

Also, check the sunscreen's expiration date. Sunscreen without an expiration date has a shelf life of no more than three years. Exposure to extreme temperatures can shorten the expiration date or shelf life of sunscreen.

**Q: What can excessive exposure to UV rays do to my health?**
**A:** UV exposure appears to be the most important environmental factor in the development of skin cancer and a primary factor in the development of lip cancer.

Although getting some sun exposure can yield a few positive benefits, excessive and unprotected exposure to the sun can result in premature aging and undesirable changes in skin texture. Such exposure has been associated with various types of skin cancer, including melanoma, one of the most serious and deadly forms.

UV rays also have been found to be associated with various eye conditions, such as cataracts.

## UV Index

**Q: What is the UV Index?**
**A:** The UV Index was developed by the National Weather Service and the Environmental Protection Agency (EPA). It provides a forecast of the expected risk of overexposure to UV rays and indicates the degree of caution you should take when working, playing, or exercising outdoors.

The UV Index predicts exposure levels on a 0-10+ scale, where 0 indicates a low risk of overexposure and 10+ means a very high risk of overexposure. Calculated on a next-day basis for dozens of cities across the U.S., the UV Index takes into account clouds and other local conditions that affect the amount of UV radiation reaching the ground.

The level of danger calculated for the basic categories of the index are for a person who burns easily and tans minimally. For this type of person, an Index value of 5 or 6 represents a moderate possibility of UV overexposure.

More information about the UV Index is available at the EPA Web site: http://www.epa.gov/ozone/uvindex/uvover.html. You can also call the Environmental Protection Agency hotline at 1-800-296-1996 for more information on the UV Index.

## Tanning and Burning

**Q: What does a suntan indicate? Why does the skin tan when exposed to the sun?**
**A:** The penetration of UV rays to the skin's inner layer results in the production of more melanin. That melanin eventually moves toward the outer layers of the skin and becomes visible as a tan.

A suntan is not an indicator of good health. Some physicians consider the skin's tanning a response to injury because it appears after the sun's UV rays have killed some cells and damaged others.

**Q: Not everyone burns or tans in the same manner. Are there ways to classify different skin types?**
A: Whether individuals burn or tan depends on a number of factors, including their skin type, the time of year, and the amount of sun exposure they have received recently. The skin's susceptibility to burning can be classified on a five-point scale as outlined in the following table:

| Skin Type | Tanning and Sunburn History |
|---|---|
| I | Always burns, never tans, sensitive to sun exposure |
| II | Burns easily, tans minimally |
| III | Burns moderately, tans gradually to light brown |
| IV | Burns minimally, always tans well to moderately brown |
| V | Rarely burns, tans profusely to dark |
| VI | Never burns, deeply pigmented, least sensitive |

People with skin types I and II are at the highest risk for damage as a result of sun exposure. However, anyone can get skin cancer. The risk of skin cancer is greater among those who sunburn readily and tan poorly, namely those with red or blond hair, and fair skin that freckles or burns easily. Although the risk is lower among those with darker skin or complexion, they too can get skin cancer and need to adopt behaviors to reduce their risk.

## Rub It On

**Q: Does it matter what kind of sunscreen I use?**
**A:** Sunscreens come in a variety of forms such as lotions, gels, and sprays, so there are plenty of different options. There are also sunscreens made for specific purposes, such as the scalp, sensitive skin, and for use on babies. Regardless of the type of sunscreen you choose, be sure that you use one that blocks both UVA and UVB rays and that it offers at least SPF 15.

**Q: What does a sunscreen's SPF rating mean?**
**A:** Sunscreens are assigned a Sun Protection Factor (SPF) number according to their effectiveness in offering protection from UV rays. Higher numbers indicate more protection. As a rule of thumb, you should always use a sunscreen with at least SPF 15.

**Q: Do sunscreens need to be reapplied during the course of a day?**
**A:** Recently developed sunscreens are more resistant to loss through sweating and getting wet than previous sunscreens. However, you should still apply generously 30 minutes before going outside and re-apply frequently, especially during peak sun hours or after swimming, exercising, or sweating.

**Q: How do sunscreens work?**
**A:** Most sun protection products work by absorbing, reflecting, or scattering the sun's rays. Such products contain chemicals that interact with the skin to protect it from UV rays. Sunscreens help prevent problems related to sun exposure, such as aging skin and precancerous growths.

Keep in mind that sunscreen is not meant to allow you to spend more time in the sun than you would otherwise. That's why it is important to complement sunscreen use with other sun protection options: cover up, wear a hat and sunglasses, and seek shade.

**Q: Some cosmetic products claim to protect you from UV rays. Can they?**
**A:** There are cosmetics and lip protectors that contain some of the same protective chemicals used by sunscreens on the market. However, not all of these products meet the standard of having at least SPF 15, and therefore do not offer sufficient protection by themselves.

## Cover up

**Q: What kinds of clothing best protect my skin from UV rays?**
**A:** Clothing that covers your skin protects against the sun's UV rays. Loose-fitting long-sleeved shirts and long pants made from tightly woven fabric offer the best protection. A wet t-shirt offers you much less UV protection than does a dry one.

If wearing this type of clothing isn't practical, at least try to wear a t-shirt or a beach cover-up. Keep in mind, however, that a typical t-shirt actually has an SPF rating substantially lower than the recommended SPF 15, so double-up on protection by using sunscreen with at least SPF 15 (and UVA and UVB protection) and staying in the shade when you can.

**Q: Does protective clothing have to be a certain color?**
**A:** Wearing clothing made of tightly-woven fabric is best for protecting your skin, regardless of the color. Darker colors, though, may offer more protection than lighter colors.

**Q: It gets so hot here in the summer, there's no way I could be comfortable in long pants and a long-sleeved shirt. So, what else can I do to protect my skin?**
**A:** Protecting yourself from the sun's UV rays doesn't have to be a major chore; it's just a matter of knowing your options and using them. Wearing a dry t-shirt is a good start, but it is not enough if you are going to be outside for more than a few minutes.

If you can't wear long pants and a long-sleeved shirt, you can boost your protection by seeking shade whenever possible and by always wearing sunscreen with at least SPF 15.

## Get a Hat

**Q: Will a hat help protect my skin? Are there recommended styles for the best protection?**
**A:** Hats can help shield your skin from the sun's UV rays. Choose a hat that provides shade for all of your head and neck. For the most protection, wear a hat with a brim all the way around that shades your face, ears, and the back of your neck.

If you choose to wear a baseball cap, you should also protect your ears and the back of your neck by wearing clothing that covers those areas, using sunscreen with at least SPF 15, or by staying in the shade.

**Q: For the best protection, what material should I look for in a hat?**
**A:** A tightly woven fabric, such as canvas, works best to protect your skin from UV rays. When possible, avoid straw hats with holes that let sunlight through.

**Q: Does the color of my hat matter?**
**A:** The amount of shade offered by a particular hat appears to be its most important prevention characteristic. If a darker hat is an option, though, it may offer even more UV protection.

## Grab Shades

**Q: Are sunglasses an important part of my sun protection plan?**
**A:** Yes. Sunglasses protect your eyes from UV rays and also protect the tender skin around your eyes from sun exposure.

**Q: What type of sunglasses best protects my eyes from UV rays?**
**A:** Sunglasses that block both UVA and UVB rays offer the best protection. The majority of sunglasses sold in the United States, regardless of cost, meet this standard. Wrap-around sunglasses work best because they block UV rays from sneaking in from the side.

## Seek Shade

**Q: Is there any particular time I should try to stay in the shade?**
**A:** The sun's UV rays are strongest and do the most damage during midday, so it's best to avoid direct exposure between 10:00 a.m. and 4:00 p.m. You can reduce your risk of skin damage and skin cancer by seeking shade under an umbrella, tree, or other shelter before you need relief from the sun.

**Q: I work outdoors all summer and can't stay in the shade. What can I do to protect my skin?**
**A:** If you can't avoid the sun, you can protect your skin by wearing a wide-brimmed hat, wraparound sunglasses that block both UVA and UVB rays, long-sleeved shirt, and long pants. You can also wear a sunscreen and lipscreen with at least SPF 15 and UVA and UVB protection and reapply according to the manufacturer's directions. When you can, take your breaks and your lunch in the shade.

**Q: If I stay in the shade, should I still use sunscreen and wear a hat?**
**A:** UV rays can reflect off virtually any surface (including sand, snow and concrete) and can reach you in the shade. Your best bet to protect your skin and lips is to use sunscreen or wear protective clothing when you're outside --- even when you're in the shade.